d

$S(x_2 \lambda)_{\mathcal{H}}$

$\forall i \left(\text{Prob}_{OM} [\Delta]_{\tilde{A}_i} = \text{Prob}_e (A_i^{-1}(\Delta)) \right)$ from

$\Rightarrow \langle \tilde{A}_i \rangle_{OM} = \langle A_i \rangle_{\lambda, \nu}$

$\forall \alpha, \beta_2 \cdot$ —

$\langle \tilde{S} \rangle_{OM} = \langle S \rangle_e$

Fine's Theorem says $\exists\, \lambda = \lambda_0$ for which we get deterministic hidden variable theory.

But $\lambda_0 \to F$

almost all λ we don't get factorization.

UNIVERSITY OF ILLINOIS AT CHICAGO CIRCLE
COLLEGE OF LIBERAL ARTS AND SCIENCES
DEPARTMENT OF PHILOSOPHY
BOX 4348, CHICAGO, ILLINOIS 60680
TELEPHONE: 996-3022

June 8

UICC

Dear Michael,

I hope you are not upset with me for my comments & referee on your paper with Peter. I tried to be as positive as detailed as I could, so as to help turn it into the fine paper it should be.

I was at Notre Dame a few weeks ago to give a physics colloquium and was delighted to meet Jim Cushing.

I'm afraid I will miss you this fall at the P.S.A. I have a Guggenheim for the year and will be off in the Pacific Northwest (somewhere) writing. I hope to emerge by spring, and then to spend some time abroad. My daughter, Sharon, will in fact be doing a year's study at U.C., London, so I have it as a "must" to spend some weeks there. I hope Chelsea will still be there by then, and that I can come by.

Best regards,

Arthur

Answered
2/16/82

Chelsea College

University of London

Manresa Road London SW3 6LX
01-~~352 6421~~ 351-2488
+ 2371.

Department of History and Philosophy of Science
Professor H R Post

6th March 1982

Dear Arthur,

I was very pleased to see your paper in Phys. Rev. Lett. It is nice to see physicists taking an interest in these problems. I still feel I want to claim that the following three statements are quite consistent

1.) Bell inequality ⟹ Kolmogorov joints for non-commuting observables. (your result)

2.) Every Kolmogorov probability space that is not too 'large' has a relative frequency (sect) model

3.) The Bell inequalities can be derived without assuming the existence of well-defined limiting frequencies for the

'Von Mises' joints of non-commuting observables.

(this was the claim I made in my EPR paper)

The reason that these 3 statements can all be simultaneously true is that the self model guaranteed by 2.) does not have to be the limiting frequency associated with a particular repeatable set-up in the real world. The same point is made essentially by Van Fraassen in his very lucid discussion of self models & probability spaces in his new book The Scientific Image (especially top of p. 187).

I very much enjoyed our chats last term, and enclose a 'clean' version of the nonlocality paper, which we have now submitted to Foundations of Physics.

With best wishes

Yours

Michael